March 18th, 2021 - Major Updates:

Compliance Date for Order No. 860 Delayed to July 1, 2021 Workshop Date Delayed to April 22, 2021

Release 1.30 Details on Next Page

Summary

- Compliance and 'Go Live' dates for the MBR System are now July 1st
- Technical Workshop is now scheduled for April 22nd
- Testing period for the MBR System is now through June 30th
- Database will not be cleared on March 30th rescheduled to June 30th
- The Commission has asked for comments on introducing three new fields to the data dictionary (60-day comment period)
- The compliance date tables on the Portal and ferc.gov were updated

Background

On March 18 and 19, 2021 the Commission issued four orders:

I. <u>E-6: Order Denying Petition for Declaratory Order</u> EL21-14-000

Among other things, the Commission found that:

- 1) Under 18 C.F.R. § 35.36(a)(9)(i), institutional investors that own 10% or more of the outstanding voting securities of the utility pursuant to a section 203(a)(2) blanket authorization order are affiliates of those utilities through ownership of voting securities.
- 2) Public utilities whose securities are acquired pursuant to a section 203(a)(2) blanket are not affiliates of each other by virtue of their common upstream institutional investor owner
- II. E-7: Notice Seeking Comments RM16-17-000

The Commission is seeking comments on the proposed addition of three new fields in the *entities_to_entities* table. These fields are necessary to prevent the connection of unaffiliated entities when auto-generating asset appendices.

- III. <u>Final Rule Delay of Compliance</u> RM16-17-000 Delays the compliance date of Order No. 860 until **July 1, 2021**
- IV. <u>Supplemental Notice of Technical Workshop</u> RM16-17-000
 - Moves the date of the Workshop to April 22nd
 Note: The Webex was moved, the prior link should still apply
 - 2) Outlines the agenda for the Workshop

Continued...

Latest Table Updates by Release

Release 1.30

- BETA TESTING Deactivate functionality [in mbr_authorizations table, and for previously-submitted, active records, only]
 - Intended Purpose:
 - If a user accidentally submits a record for a table, the user will now be able to inactivate / remove / delete that specific record. For backward traceability, the record will remain in the database with an indication of the Submission which Deactivated it.
 - Theoretical Example:
 - A filer accidentally submits a second authorization into the database and realizes this was a mistake. Previously, Updating that record would necessitate submitting all the data in the table and would retain an active association to that record. With Deactivate, the filer submits an mbr_authorizations table with a record type of "Deactivate" and the Reference ID to that record to inactivate the association with that record.
 - Note: Neither Inactive, nor Active records with relationship end dates in the past, are used to populate asset appendices.
 - This is not intended to be used as the primary mechanism for changing records – Update should always be used when modifying details of previously-submitted records.
 - Steps to Deactivate:
 - Only two fields should be submitted when Deactivating a record
 - 1) Record type cd = "Deactivate"
 - 2) Reference_id = [id of the record to-be Deactivated]
- Added API parameter values for the MSS and PSS.record_type_cd
- Updated various MBR Web API items:
 - Provided a sample SOAP response to find missing parameters
 - Updated API endpoints:
 - LT PPA Purchase & Sale
 - Vertical Assets
 - Pivotal Supplier Screen
 - Market Share Screen
 - Updated Data Dictionary indicative_mss to include row 5, study_amended_reference_fk
 - When MSS submissions occur, a second validation email will be sent that contains the validation. Previously, only a first email was sent and data was not successfully posting to MBR which could also not be retrieved when searched.
 - Updated missing EIA 2019 data on the MBR portal.

Continued...

- Enhanced XSD for MSS and PSS:
 - Implemented validations to prevent the submission of either duplicate study parameters (or seasons within the same parameter).
 Validations also prevent the submission of either more or fewer parameters than expected

- Updated a rule for triggering the creation of a new Asset Appendix. Submissions
 containing entities_to_vertical_assets tables without any of the other
 "entities to " tables now result in a new AA.
- Implemented new rules for rounding calculations. The system now accommodates whole numbers, and rounded decimals to the tenths and hundredths place. For example a system calculation of 4.1 can be accepted as 4, 4.1, or 4.10; 4.11 as 4.1 or 4.11; or 4.111 as 4.11.
- Loosened restrictions in MSS/PSS calculations:
 - Values less than ten no longer require leading zeroes.
 - System Calculations and associated validations now prevent negative numbers in calculations, and instead will necessitate zeroes.
- Updated various MBR Web API Downloads:
 - MSS/PSS: the Study_Parameter_ID replaces the study_param attribute
 - MSS/PSS: data return is now structured as arrays by Study_Parameter_ID and season_fk (Season for MSS only)
 - o entities_to_PPAs: added scheduled_end_date
 - entities_to_vertical_assets: added relationship_start_date and relationship_end_date
- Updated the Latest Asset Appendices landing page to contain an example row of data when clicking through the various tabs, with a blank search
- Fixed an Auto Processing bug when an <code>entity_ID_type_CD</code> didn't match the type of <code>entity_ID</code> submitted (ex: <code>entity_ID</code>: CXXXXXX <code>entity_ID_type_CD</code>: LEI). The system now returns an error.

Release 1.28

 MBR Reports→ Asset Appendix (AA) updated in the Draft Reports Table to "Asset Appendix Repository".

- MBR Reports→ MBR users now have a unified interface for reporting and can download MSS reports by company name as well as click "Ultimate Upstream Affiliate" for an AA pop-up window.
- WCF/API correctly navigates to uploaded MBR XML file.

- **Contains major update to Asset Appendix functionality**
- The <u>Asset Appendix Repository</u> is a new functionality of the system that creates a history of generated Asset Appendices (Gen Assets, Vertical Assets, and PPAs)
 - The history of these Asset Appendices is tracked and referenceable by the "Asset Appendix Serial Number" on the Repository report (the furthest left column)
 - For background on the Asset Appendix Serial Number, please see paragraphs 16, 56, and 315 of Order 860
 - The "Get Report" link on the far right of the page links to that specific Asset Appendix, showing metadata of the report at the top of the page
 - Anytime a new Asset Appendix is generated by a successful submitting, a Serial Number is sent in the Acceptance email and link to the report of that
 - A new Asset Appendix is generated for an entity and its affiliates when any of the following tables are submitted:
 - entities to entities
 - entities_to_genassets
 - entities to vertical assets
 - entities_to_ppas
- Updated XML Submission Page language, in addition to the <u>blank XML example</u>, an <u>XML example</u> was added with sample data. This new file includes examples of filing both New and Updated data for every table.
- Redline and Excel versions of the Data Dictionary were uploaded

** Both the Data Dictionary, and the XSD have been updated with this release **

- An <u>updated Data Dictionary</u> was published under <u>Documents and Links</u>.
 - o [Redline and Excel versions will be published this week.]
- The XSD now requires each season when submitting MSS tables. Related Auto Processing issues were resolved by adding these attributes to the XML.
- The validation rules now limit MBR data updates to the filing CID for which the filer is an agent in FERC Online Registration.

Release 1.25

- MBR Reports -> Updated Asset Appendix Vertical Asset table so that the "Filing Entity and its Energy Affiliates" column is visible and pulls data from the correct table.
- Renamed column to "Capacity Rating Methodology Used:(N)ameplate, (S)easonal, 5-yr(U)nit, 5-yr (E)IA, (A)Iternative".
- Data now correctly displays in the "Capacity Rating Methodology Used: (N)ameplate, (S)easonal, 5-yr(U)nit, 5-yr (E)IA, (A)Iternative" column.
- MBR Reports→ Asset Appendix Capacity Rating Used in Filing (MW) column now pulls data from the correct table.
- Update to XML file PSS Only for validation rules and pre-validation that will prevent submission of duplicated tables within the same file.
- Added placeholder link for future Excel format of Data Dictionary.
- Users now able to input International zip codes.
- MBR UI data format update for MSS/GIS/PSS Commas are now included in all numeric fields.
- Reports/Views/UI→ AA Connection and Field Updates AA Gen/PPA/vertical assets all affected. Affiliation views corrected for CID/GID/LEI data.
- Search→ End to end queries are now able to be conducted in relationship end and inactive dates searches.
- MBR Reports→ GIS Report for PSS Screens, where no screen data exists, now display as blank instead of auto-populating with zeros.
- MBR Reports→ GIS Report now displays PSS-Net Uncommitted Supply data.
- MBR Reports→ GIS Report now displays MSS-Market Share Results (%).
- Blank spaces, before and after all submitted data, will now be removed from the XML source prior to database entry.
- MBR Reports→ Updated Asset Appendix Affiliations through GID/LEI now correctly populate assets/PPAs.

- MBR Reports→MBR Affiliations list is viewable and provides Search and Export to CSV.
- Adding EIA business validation rules to add the <eia_generator_id> and <eia_unit_code> to the validation for tables entities_to_genassets and entities_to_ppas.
- Validation added that if a record does not exist in the MBR system, the same XML user is not allowed to submit the same MSS Submission within the XML.
- MBR Reports→Asset Appendix Report now contain search fields for LEI and GID.

Release 1.23

- MBR Reports→ FERC Asset Single Submission Summary link opens to the Single Submission Summary Report and provides search and export capability.
- MBR Report→ Submission Summary Report displays Submission Summary table in descending Order to ensure latest submission displays at the top of the list.
- MBR Reports→ Submission Summary Report modified to remove 6 columns from the report located on the far right to improve data display.
- Log In screen now displays the MBR Order Schedule initially until Log In.
- Submit Data > Indicative PSS and Indicative MSS reports now display the correct report under the Action column field for the selected company record.
- MBR Reports → MSS and PSS Reports → Report Link now displays the SIL Limit Exceeded Column and the Result column data as one digit, instead of decimal places, (0, vs. 0.00)
- MBR Reports → GIS Report now displays Data for Fall as well as Winter, Spring and Summer data.
- Update to the validation rules to ensure that All MBR XML Submission data is only submitted or updated by the original CID or submitting entities who are authorized to file on behalf of the CID.
- Update to the validation rules to ensure that duplicated data is not submitted through the XML filing that already exists in the database. An error message will indicate that duplicate data has been submitted.

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- MBR Reports→Global Information Report (GIS) is now available in the User Interface. This report provides a regional summary of Market Power Studies and allows the user to analyze the power studies for MSS/PSS for a selected region and study year.
- MBR Reports→ Asset Appendices→Long-Term PPA include column name updates; seller name changed to Counterparty Name, Unit or system changed to Type of PPA. Also, the organization name under the "Counterparty Name" should always (Sale or Purchase) refer to the organization in the "counterparty_id" database column and the values under the "Filing Entity and its Energy Affiliates" should always(Sale or Purchase) refer to the organization in the "entity_cid_cd" database column (or affiliates related to this organization)

- MBR Reports → Submission Summary Link opens to the Submission Summary Report
- Updates to the XML file that validates in the entities_to_PPAs table the field should be null when supply_type_fk is not 1, but when supply_type_fk=1, the entities_to_PPA table is not nullable.

- Update to the MBR Reports →Asset Appendices: users can now export the 3
 Asset Appendix tabs (Generation, PPAs, and Vertical) in CSV format to a ZIP
 file.
- The lkp_supply_type lookup table is now downloadable on the MBR Web API Help Page.
- Submissions to the entities_to_entities table no longer accepts a reportable_entity_ID that is the same as the CID of the reporting_entity_cid established in the FilingInformation table.
- Submissions to the entities_to_entities table now validates that the relationship_start_date value should not be null when the data is submitted in the reportable_entity_ID_type_CD and reportable_entity_ID fields.

- Update to the XML file for validations that will prevent duplicated data based on table rules in the file.
- Search→ Submitted Data tables currently display all company names when an CSV Export is performed.

Release 1.18

- **Critical Update:** Modification to the XML structure to match the order of the tables and attributes of the data dictionary. As such, subsequent submissions must conform to the latest XML.
- File submission errors now specify the attribute name associated with the error.
- Further refinements to the validation rules and associate notifications.

Release 1.17

- XML code structure change to modify EIA *entities_to_genassets* and *entities_to_ppas*.
- Modification to the sample XML file to improve usability when opening the file as a new tab. This allows easier editing without modifying the original structure of the XML.
- Error messages for MSS and PSS can be managed through the Admin Module.
- Asset Appendix screen provides a search functionality for Organization and CID name.
- Admin Module → Manage GID Records → Name Search Parameter 2 field allows an additional name to be added to a company association.
- Admin Module → Manage GID Records→GID Relationship Group Search field for group numbers.
- Admin Module → Manage GID Records modification of columns for better viewing.

- Admin staff can now select any email template from the user interface to edit and save changes to the email.
- Look up Tables and MBR Submitted tables all list active and inactive dates for each item on every table.
- MBR Reports →Asset Appendix Report → displays Generation Assets Report on screen as a default display.
- MBR Reports → Asset Appendix Report→ replaced Transmission & Natural
 Gas sub menu with Vertical Assets sub menu.

- MBR Administrative menu now available on the User Interface.
- MBR Administrative screen allows upload and download options for Release Notes and Data Dictionary.
- MBR Administrative screen provides ability to modify Look-up tables data and review audit history.
- MBR Administrator → Manage GID Records link, now provides the following features on the GID Administration screen:
 - Display ability to search GID records by GID name
 - Ability to initiate LINK function
 - Ability to select a record as lead
 - Ability to select from a list of records all records to be included in the relationship
 - Ability to indicate relationship/Group ID for all records who are a member of a relationship
 - Ability to indicate the relationship/Group Leader

- MBR Data Tables→ Expanded search function to include Submission FK data field.
- Lookup Tables→ Addition of three tables: lkp_mss_indicative_study_param, lkp_pss_indicative_study_param and lkp_supply_type.
- Lookup Tables→ Data cleanup Active Date fields default to 1/1/2020 and Inactive dates default set to null.
- MBR Authorization → Internal users only MBR Administration screen security authorization implemented per MBR Admin group membership.
- Documents and Links→ Addition of WCF Service Link.
- MBR XML update to rename the PK column from vertical_assets_id to entities_to_vertical_assets_id.

- Major revision to the Data Dictionary every table affected Redline and Standard versions are available in <u>Documents and Links</u>
- MBR Reports link from the User Interface screen links to the new MBR reports screen
- MBR Reports section of the website is the primary source for finding Reports and future Data Views
- Reports for MSS and PSS are available online and as CSV downloads
- Every Report contains a unique URL to the online report format
- Added the Action column in the MSS and PSS reports in the Submitted Data section of the website

Release 1.12

- Filing period information is no longer included in the validation and acceptance emails sent to the filer.
- Search → Gen Assets will display a validation error if there is no End Date in the Active Date field when there is Start Date in the Active Date field
- Placeholders are no longer displayed in the General Search, Gen Asset and the EIA data fields.
- Search → General now provides export options for XML, CSV, and JSON
- Search→ General screen modifications for the Search, Clear and Print button to align with the XML, CSV, and JSON export buttons
- Search → Look Up Tables; BAA, Category Status in Region, Entity Type, PPA
 Type, Record Type, Region, Relationship Type, Scenario Type, Seasons,
 Study Type and Vertical Asset Type now have Active Dates as 1/1/2020
- Search → EIA and Gen Asset now allow partial search in the name field (3 characters minimum)
- Implemented XML data submittal validation functionality for the MSS
 Indicative Screen table in accordance to the latest published Data Dictionary and Data Validation rules document

Release 1.11

- Following the new ferc.gov update, XML/XSD Namespace was updated to reflect MBR server vs. FERC.GOV location. Sample files for all XML and XSD files have been updated accordingly.
- The Latest Table Updates table (pictured above) replaces the prior visual.
 The goal is to show the last release in which each specific table was updated.
 If you would like to, please submit feedback on this visual to
 MBRDatabase@ferc.gov
- The validation rules for MSS/PSS table submissions were relaxed to allow multiple MSS / PSS submissions by filer
- Search → Submitted Data tables now provide a search filter radio button for Active, Inactive, and All Records

- Search → Gen Assets screen now provides capabilities to search Gen Asset data "Search" the same as (CID/LEI/GID) screen with all functionalities (e.g. print and export)
- Search → EIA Screen now provides capability to search an export EIA data
- All searches now display 50 records on the screen per page
- The BAA and HUB lookup tables were updated to properly show the Codes of the locations, for use in submitting data
- Remove the MBRSubmissionType and DateofReport element in the FilingInformation Table
- Documents and Links → FERC.GOV URL updates.
- Enhanced the validation for entities_to_ppas: added/modify the rules for the columns(alt_methodology_used, source_balancing_authority_cd, source_balancing_authority_hub_cd, sink_balancing_authority_cd, sink_balancing_authority_hub_cd) to match the data dictionary

- Search→ Look Up Tables and Submitted Data now provide export functions for CSV and JSON format in addition to XML.
- Search→ Gen Assets → now provide export functions for CSV and JSON format in addition to XML.
- Active and Inactive date columns are now visible on the right side of Search
 → Submitted Data tables.
- Search →Submitted Data→Searching will display validation message of "End range is missing" when there is no End Date in the End Range field.
- MBR Tables (e.g. 13 primary tables) now allow basic search and downloading functions as well as sorting, exporting and filter criteria by data type.
- Update of pparef_ID to entity_id and pparef_ID_type_CD to ppared_id_type for validation.
- Search→ Submitted Data→ MBR Tables now provide the ability to see data results, sort data and export XML data on the screen.
- New MBR reports available in the Reports portal for Filing Confirmation and Analytics.

- Expansion of search and export capability of 5 of the 11 MBR Submitted Data tables (XML Format)
- Export function implemented for all MBR Lookup Tables (XML Format)
- Validation enhancement on study_parameter_value for recordtype=update, values to be in "1-9504" range.
- In the search → Submitted Data → MBR Lookup tables now all contain data and are exportable.

- The MBR Authorization Screen record type field now provides an option to select a Record type of 1. New or 2. Update, from the drop-down box and provides an export button to export the record to an XML schema format
- Combined the Document Links and Useful Links screens into one page
- Updated the search tree layout to simplify searches in the Lookup Tables and Submitted Data
- Acceptance email for a GID XML submission now contains the newly created GID number(s)
- Acceptance email for a FERC Asset XML submission, now contains newly created FERC Asset ID number(s)
- Introduced the Web API page, currently available for Lookup Table data.
- Improved indexing capabilities with web API on the Search interface Look-up
 Table screen for the Balancing Authority table
- New report in the reports portal to display generation asset submission information
- New report in the reports portal to display GID submission summary information
- Company Name column was added to the MBR Authorization Table
- In the Search → Submitted Data screen → entities_to_genassets and entities_to_ppa tables, added gen_asset_type_fk column and removed gen_asset_id column from entities_to_genassets table
- Updated the XML Submission file to validate all tables data when the record_type_cd is null to avoid errors in the filing

Release 1.7

- Correction to XML/XSD validation to allow submission of multiple records for given MRB Submission table.
- Modification to MBR lookup tables and removal of redundant table/data such as the replacement of Asset Table with Vertical Asset table.
- Modification of LEI search in the **General Search** screen to require a minimum of 5 characters to help facilitate more responsive search results.
- Modification MBR menu modification Search menu now displays additional sub menus on the user interface:
 - o **General** opens the general search
 - General Assets-Lookup Table displays a list of look-up tables selectable from the menu
 - General Assets-Submission Data displays a list of submission data selectable from the menu
- Initial implementation of search and export functionality for MBR
 Submission's MBR Authorization table to allow users the ability to search and filter data by table data and export result set to XML format.
- **Search** menu→ **Submission Data** → **MBR Authorization** screen now provides entry fields to enter the Start and End Range for dates, number fields and drop-down values for records types.

- **Reports** Menu in the interface has been removed and data now displays under the General Menu, and sub-menus.
- Expansion of Generation Asset submission recording to now log submitters of Gen_Asset identification to allow reporting of Gen Asset information by submitter.

- Updates to the following lookup tables for BAA, BAA_Region,
 Cat_Status_in_Region, Region, Relationship_Type in support of
 validation processes.
- Look-up Table drop down menu list in the Reports screen updated to reflect lookup table changes.
- Company Registration, users should be able to assign and remove delegated agents for the MBR form submissions. This feature is visible in the Company Registration application only.
- Minor updates to user interface (e.g. release number display format)

Release 1.5

- Added New entries in the Generation Assets and XML schema files for FERCASSET or EIA to the entities_to_genassets and entities_to_ppas tables, for validation and database updates.
- Updated to general assets XML file for operating month validated as "1-12" and operating year validated as "1890-2050".
- Updated Generation Assets XML file with country information for United States, Canada or Mexico for validation.
- Expanded email notification for XML file submissions to include emails for receipt, validation, and acceptance/rejection. Validation emails contain a link to the XML file that confirm either an acceptance of the filing or a rejection (failed) message. The rejection notification now contains the error(s) that caused the rejection.

Release 1.4

- Add new record types to the XML Schema and database for the following items: entities_to_genassets, mbr_operating_reserves, mbr_authorizations, entities_to_vertical assets, entities to entities, indicative_pss, indicative_mss.
- Update the following MBR Tables in support of MBR XML submission process; indicative_pss, and indicative_mss for validation and processing.

- Updated the following MBR tables in support of MBR XML submission process:
 entities_to_vertical_assets, mbr_operating_reserves, indicative_mss
- Update to MBR support documents to include matching version numbers (e.g. GID, Generation Assets, MBR XML and MBR XSD).
- Updated MBR XML submission tables in accordance with data dictionary updates. This includes Record Type for filers to identify records as New or Update.
- Updated FERC_GEN_ASSET country lookup table to include all states for USA and all province and territories linked to Mexico and Canada.
- Addressed security vulnerabilities remediation per security scan reports.

Release 1.2

- Added the following MBR tables in support of MBR XML submission process:
 entities_to_vertical_assets, mbr_operating_reserves, indicative_mss
- Update to MBR support documents to include matching version numbers (e.g. GID, Generation Assets, MBR XML and MBR XSD)
- Updated MBR XML submission tables in accordance with data dictionary updates. This includes Record Type for filers to identify records as New or Update.
- Addressed security vulnerabilities remediation per security scan reports.

Release 1.1

- Added the following MBR tables in support of MBR XML submission process:
 entities to genassets, entities to ppas, mbr self limitations
- Clickable page number grids now display at the bottom of the search screen to advance to subsequent pages.
- Footer contact and release number information now displays at the bottom of every screen in the MBR system.
- Modifications have been made to validate the following tables: mbr_authorizations, mbr_category_status, mbr_mitigations and entities to entities.
- The search screen now allows individual selected and GID first and last name entered as a search option.
- The text for the radio box; "Are you requesting a GID for an individual" was modified and is located at the top of the create new GID screen.
- In the search page, there is now a clear button located next to the search button to clear the fields for another search.
- In the search option, the search input data is no longer case sensitive.
- In the search results the display of rows is increased to 50.
- Search results print button now prints all rows in the search results.
- All countries for companies throughout the world are now listed on the GID Screen.
- Search, reports and FERC on-line links are now available to the public without logging in or registering.

- In the Create New Generation assets screen, the year field will allow dates entered only between 1890 and 2050.
- IT-support <u>center@ferc.gov</u> has been replaced by <u>MBRDatabase@ferc.gov</u> in the banner for support contact.
- GID request email now displays, Entity name instead of Organization name.
- FERC asset email now displays, Assist ID instead of plant code.
- Registration email now displays, "Thank you for using the GID Service"